

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P291916

Luminaire Tested: **22GR-LD5-40-F1-UNV-L92765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291916  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-40-F1-UNV-L92765-W2A1-U-5000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3770.0 lumens  
Efficiency: N/A  
Efficacy: 113.9 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.24  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

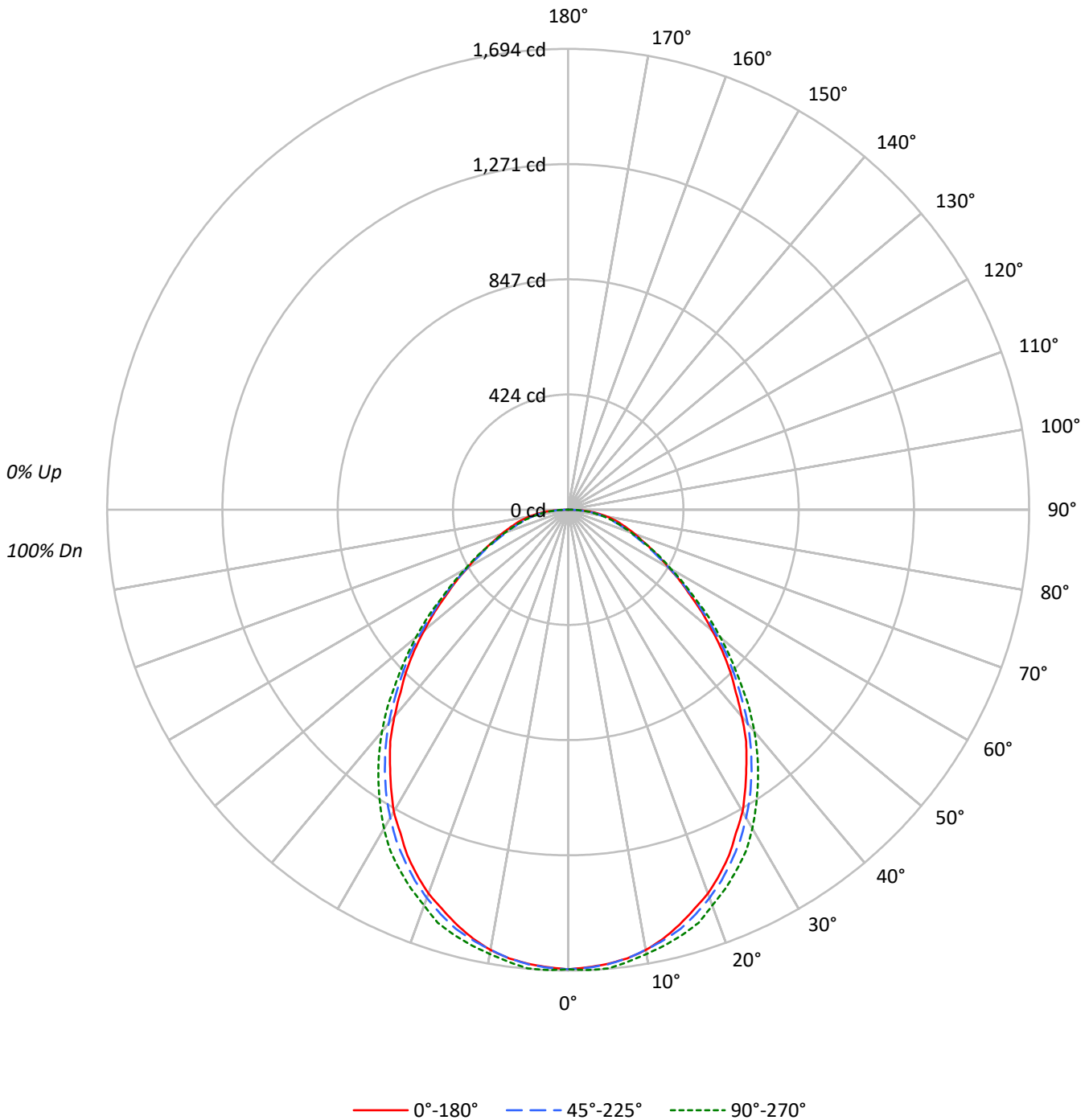
Input Watts (W): 33.108  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48					48			
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38					38			
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34					34			
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4546	4546	4546
5°	4526	4531	4573
10°	4491	4489	4531
15°	4400	4444	4509
20°	4300	4349	4434
25°	4157	4224	4342
30°	3982	4063	4205
35°	3749	3857	3994
40°	3489	3608	3738
45°	3203	3295	3398
50°	2889	2962	3056
55°	2563	2624	2669
60°	2298	2302	2349
65°	2117	2046	2117
70°	2044	1894	1949
75°	2079	1855	1890
80°	2241	1946	1946
85°	2485	2059	2032



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.4	4.2
10°-20°	449.5	11.9
20°-30°	656.0	17.4
30°-40°	734.5	19.5
40°-50°	668.4	17.7
50°-60°	503.1	13.3
60°-70°	328.3	8.7
70°-80°	196.9	5.2
80°-90°	73.8	2.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1264.9	33.6
0°-40°	1999.4	53.0
0°-60°	3170.9	84.1
0°-90°	3770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3770.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1689	1689	1689	1689	1689	
5°	1676	1673	1677	1683	1693	159
15°	1579	1581	1595	1608	1618	445
25°	1400	1404	1423	1449	1462	643
35°	1141	1152	1174	1202	1216	713
45°	842	850	866	884	893	648
55°	546	554	559	567	569	494
65°	332	329	321	326	332	333
75°	200	193	178	179	182	212
85°	80	78	67	63	66	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1689.4	1689.4	1689.4	1689.4	1689.4
2.5°	1683.4	1682.5	1685.1	1689.4	1693.7
5°	1675.6	1673.0	1677.3	1683.4	1692.9
7.5°	1663.4	1663.4	1663.4	1674.7	1676.4
10°	1643.5	1645.3	1642.7	1653.9	1658.2
12.5°	1614.9	1615.8	1621.0	1632.3	1640.1
15°	1579.4	1581.2	1595.0	1608.0	1618.4
17.5°	1539.6	1545.7	1558.7	1579.4	1592.4
20°	1501.5	1508.4	1518.8	1541.3	1548.3
22.5°	1453.0	1460.8	1473.8	1493.7	1508.4
25°	1400.2	1404.5	1422.7	1448.7	1462.5
27.5°	1337.0	1346.5	1369.0	1395.9	1414.9
30°	1281.6	1286.8	1307.5	1338.7	1353.4
32.5°	1211.4	1227.0	1244.3	1272.0	1285.9
35°	1141.3	1151.7	1174.2	1201.9	1215.8
37.5°	1073.7	1079.8	1102.3	1125.7	1143.0
40°	993.2	1004.5	1027.0	1052.1	1064.2
42.5°	912.7	929.1	943.9	969.0	982.0
45°	841.7	850.3	865.9	884.1	892.8
47.5°	767.2	771.5	789.7	801.0	810.5
50°	690.1	695.3	707.5	718.7	730.0
52.5°	619.1	623.5	631.3	641.6	652.9
55°	546.4	554.2	559.4	567.2	568.9
57.5°	487.5	486.6	490.1	496.2	502.2
60°	426.9	428.6	427.8	433.8	436.4
62.5°	376.7	375.8	370.6	379.3	386.2
65°	332.5	329.1	321.3	326.5	332.5
67.5°	291.8	290.1	277.1	281.4	286.6
70°	259.8	253.7	240.7	243.3	247.7
72.5°	228.6	221.7	208.7	209.6	212.2
75°	200.0	193.1	178.4	179.2	181.8
77.5°	173.2	164.5	151.5	149.8	151.5
80°	144.6	136.8	125.6	120.4	125.6
82.5°	115.2	110.8	97.8	92.7	94.4
85°	80.5	77.9	66.7	63.2	65.8
87.5°	37.2	39.8	33.8	31.2	32.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)